

AN ELEMENTARY TREATISE ON HUMAN ANATOMY. By JOHN LEIDY, M.D., LL. D., Professor of Human and Comparative Anatomy in the University of Pennsylvania, etc. Second edition, re-written. 8vo., pp. 993. Philadelphia, J. B. Lippincott & Co. 1889.

The work of Prof. Leidy appears in the second edition, rewritten, as the author states, twenty-eight years after its first publication.

On opening the book the clearness of the letter-press at once attracts the eye. Of the illustrations, which are numerous, all are exceptionally good, except those in the section on osteology, which seem needlessly small.

A distinctive feature of the work is the substitution of English equivalents for classical nomenclature. For example the *erector spinae* is called the "*dorsal extensor*." We confess some doubt as to the advisability of this. It is true that technical synonyms are given as foot notes on every page, but it is an open question whether the reader is expected to connect them in his mind with the author's nomenclature, or to defer this until he reads Gray or Quain.

The scheme is proposed as an aid to the commitment of anatomy, yet until the medical profession ceases to be a learned one, it seems not too much to require of candidates for its privileges, the knowledge of its fundamentals in a language recognized as universal.

However this feature of the work may be regarded, the excellence of the descriptive anatomy is not to be disputed. The style is direct, the diction clear. Good judgment has been shown in the selection of salient features of subjects discussed, and their presentation is in a graphic style which years of lecturing has, doubtless, developed.

As a preliminary to further study the book is admirable, and can be safely put by preceptors into the hands of their pupils.

THE PHYSIOLOGY OF THE DOMESTIC ANIMALS. A text book for veterinary and medical students. By ROBERT MEADE SMITH, M.D., Professor of Comparative Physiology in the University of Pennsylvania, etc. 8vo., pp. 920. Philadelphia, F. A. Davis. 1889.

The book before us is a pioneer in its chosen field and almost a necessity. It is true that domestic animals have formed the basis of experimental physiology, and have furnished the great bulk of facts whence the laws of human physiology have been deduced. Yet aside from foreign works on the subject we have had until now no systematic treatise devoted to the study of their functions.

So extensive is the scope of the work and so thorough is it in detail that space permits only a suggestion of its many features.

General physiology, special physiology and the reproductive functions are treated in as many parts.

The first may be said to be cellular physiology and occupies one hundred and fifty pages in which the cell theory, as at present accepted, is stated and discussed lucidly. The chapters on the origin of cells, their modification and general properties, including cellular physics and chemistry, combine the exactitude of science and the charm of ingenious theory; while fifty or more plates clearly illustrate descriptions necessarily technical.

The second part, which constitutes the bulk of the book, considers first the nutritive functions. A general survey of foods and diet is followed by some two hundred pages on digestion. These are rich in comparative anatomy. The digestive tracts of the herbivora and carnivora are compared, and relative changes as affected by diet are discussed.

In the sections on circulation and respiration, which follow, comparative anatomy again increases the interest of the subject.

Graphic illustrations from Landois' recent work aid in rendering the chapter on renal secretion clear.

As is fit, the final section of this portion of the work discusses nutrition. Chapter follows chapter in the consideration and elucidation of one of the most interesting problems of the day, viz., the chemistry of foods.

Under the head of animal functions, the physiology of movement is next considered. After a succinct account of the physical and chemical properties of muscular tissue, animal locomotion is discussed. Especial attention is given to the various gaits of the horse and the subject is well illustrated by plates from instantaneous photographs which so revolutionized our ideas of motion when first made public by Muybridge.

The chapters devoted to the nervous system are clear and concise. The localization of functions, that branch of physiology which has of late played so important a role in cerebral surgery, is ably treated in some thirty pages and is accompanied by several finely executed colored plates, which materially increase the value of the text.

The work throughout is well balanced. Broad, though not encyclopediac, concise without sacrificing clearness, it combines the essentials of a successful text-book. It is eminently modern, and although first in the field, is of such grade of excellence that successors must reach a high standard before they become competitors.

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